REMARKS

Claims 1 and 12 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The subject matter that the Examiner finds indefinite is clearly described on page 11, line 18 to page 12, line 14, for example. Applicants respectfully submit that the subject matter of claims 1 and 12 is not indefinite and request withdrawal of the rejection.

The drawings stand objected to under 37 C.F.R. §1.83(a). The Examiner requires that the claimed "image data processor" be shown in the drawings. The claimed image data processor is clearly shown in Figs. 1, 2, 4 and 6A, and referenced with numeral 4. Withdrawal of the rejection is respectfully requested.

Claims 1-10 and 12-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kumashiro (US Patent 5,870,503). Applicants respectfully traverse this rejection because the cited reference does not disclose or suggest using an input image data of a maximum tone or an input image data of a minimum tone for data correction (in an image data processor). The maximum tone or the minimum tone is not itself subject to the data correction in the image data processor. The cited reference also does not disclose or suggest the data driver outputting a correction value for correcting the input image data of the maximum tone and the minimum tone.

The Kumashiro reference relates to an image processing apparatus, and discloses a memory 51 for storing input image data f(x,y) and a maximum/minimum detection filter 52 for detecting the maximum and the minimum values of pixels in a 5 x 5 local region (see Fig. 41). A subtractor 53 calculates the difference between the detected

maximum value and the minimum value, and the output of the subtractor is then compared with a threshold value (th1) in a comparator 54. The output of the comparator then determines, through a selector 55, whether to output a coefficient P or T designating a text region or a photographic region, respectively (see Col. 20, lines 25-42).

The Office Action refers to the maximum/minimum detection filter 52 and the coefficient K3 output by the selector 55 as disclosing the claimed features in which the input image data of maximum or minimum tone is used for the data correction of image data input in the image data processor. As clearly shown in Fig. 41 and described in the specification, the maximum/minimum detection filter 52 of Kumashiro detects the maximum and minimum value from among pixels in a 5 x 5 local region, and not from the input image data f(x,y) as in the present invention. Rather, the input image data f(x,y) are first stored in the memory 51, and the maximum value and the minimum value is selected from the maximum/minimum filter 52 from among the 5 x 5 pixels. The reference does not disclose that the maximum and the minimum values of the selected pixels are the maximum or the minimum values of the input image data f(x,y).

Moreover, data correction of the inputted image data is conducted separately by the image data of a maximum tone or an image data of a minimum tone in the present invention. In contrast, the minimum value of the pixels are subtracted from the maximum value to find the difference of the two values in the subtractor 53 of Kumashiro. In other words, both the maximum and minimum values are used together or combined in Kumashiro. In contrast, the input image data of the maximum and minimum tones are used separately for

data correction in the present invention. For these reasons, independent claims 1 and 12 and their dependent claims 2-7 and 13-14 are allowable over Kumashiro.

Applicants respectfully traverse the rejection with respect to claim 8, because the cited reference does not disclose or suggest a data driver that outputs (in addition to outputs corresponding to all tones designatable by inputted image data) an output corresponding to a higher luminance than a luminance of a maximum tone or a lower luminance than a luminance of a minimum tone.

As described above, the maximum/minimum detection filter 52 merely outputs the maximum or the minimum value of pixels in a 5 x 5 local region. It does not select the maximum or minimum input image data f(x,y). Even assuming that the 5 x 5 pixels can be equated with the input image data, the maximum/minimum detection filter would merely output the maximum and minimum values. The maximum/minimum value detection filter 52, however, would not output a value corresponding to a higher luminance than the luminance of a maximum tone or lower luminance than the luminance of a minimum tone, as in the present invention. Claim 8 is believed to be allowable over Kumashiro for at least this reason.

Applicants respectfully traverse this rejection with respect to claim 9, because Kumashiro does not disclose or suggest the image data processing part that outputs a signal to prohibit an error diffusion part from generating a mean tone for image data that has undergone the data correction. The Examiner cites to the error correction unit 83 in Fig. 1

for disclosing the image data processing part, and the filter 52 in Fig. 41 for detecting "maximum and minimum values and generates a coefficient K3 for data correction."

The circuit disclosed in Fig. 41 is a region determination device that "carries out region determination according to input image data f(x,y) (see col. 20, lines 25-26). The region determination device of Fig. 41 is not part of the circuit of the image processing apparatus 80 of Fig. 1. Therefore, it is improper for the Examiner to pick and choose features from different embodiments, and combine them when there is no suggestion to do so.

Moreover, the filter 52 detects maximum and minimum values from a 5 x 5 pixel region and generates a coefficient for data correction. It does not disclose an image data processing part outputting a signal to prohibit the error diffusion part from generation mean tone for image data that has undergone the data correction. Claim 9 is allowable for at least these reasons.

Applicants respectfully traverse the rejection with respect to claim 10 because the Examiner has not made a *prima facie* case for rejection under §102(b). In rejecting the subject matter of claim 10, the Examiner merely cites to Fig. 20 of Kumashiro and in particular, the "horizontal synchronization signal going into a multi-value dither circuit 111 for converting an image data of eight bits into dither image data of four bits." As acknowledged by the Examiner, the claimed feature for correcting an error is conducted in the error correction unit 112. Merely citing horizontal synchronization input that goes into a device for converting image input data of a eight bits into dither image data of four bits does not disclose that the correction amount in the data correction is changed by a unit of at least

one horizontal display line of a display part. Withdrawal of the rejection is respectfully requested.

Claim 11 stands rejected under 35 U.S.C. §102(e) as being anticipated by Suzuki et al. (US 2002/0140652). The rejection merely repeats the rejection of the last Amendment. The Applicants have provided reasons for a traversal in response to that rejection. The Office Action states that Applicant's arguments, with respect to claims 1-14, are moot in view of the new grounds of rejection. However, the rejection is still based on the previously cited Suzuki reference. As such, Applicants' arguments are not moot. Applicants respectfully request reconsideration of the arguments presented in the previous Amendment, which is repeated below.

Claim 11 is rejected based on the temperature sensor 24 shown in Fig. 1 and described in paragraphs [0096] and [0097] of Suzuki et al. The cited paragraphs disclose that the temperature sensor 24 is used to detect the temperature when the device is in use, and based on this temperature, the display drive data generation unit 12 downloads, at each predetermined cycle, the most suitable conversion table from the RAM for compensating the input drive data nFo. The Suzuki et al. reference does not disclose or suggest that the measured temperature itself is corrected in any way.

In contrast, the temperature measured in the present invention is corrected by a temperature correction amount that varies with time during a period from power supply time to a temperature stable time. The cited references, alone or in combination, simply do not

disclose or suggest this feature of the present invention. Claim 11 is believed to be allowable for at least this reason.

For the foregoing reasons, Applicant submits that this Application, including claims 1-14, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney should the Examiner discover any remaining issues related to patentability.

Respectfully submitted,

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July 30, 2008

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